

REMARKS

Allowable Subject Matter

Applicants' gratefully acknowledge the Examiner's indication that claims 21, 23 and 26 recite allowable subject matter.

Amendments

Claim 21 is amended to be in independent form. Indication that claim 21 is allowed is respectfully requested. The specification is amended to include a "Brief Description of the Drawings" and to correct references to the drawings in the specification. Entry of the amendments is respectfully requested.

Objection to the Declaration

Applicants submit herewith a new Declaration which sets forth the zip code designations of the inventors' post office addresses.

Objection to the Specification

Contrary to the assertion in the objection, applicants' specification as originally filed contained all the "sections" that are required under the statutes and the Rules for a complete specification. The objection does not indicate what allegedly required sections are missing, nor does it cite any statute or Rule in support of the objection. The "guidelines" listed in the objection, are simply that, guidelines, not requirements. In any event, the specification is amended above to include a "Brief Description of the Drawings" and to correct references to the drawings in the specification. Withdrawal of the objection is respectfully requested.

Rejection under 35 USC §102 in view of Garber

Claims 24 and 25 are rejected as allegedly being anticipated in view of Garber (US 1,297,828). This rejection is respectfully traversed.

It is noted that claims 24 and 25 both depend from claim 1. Yet, claim 1 is not rejected as being anticipated in view of Garber. Claim 1 was previously so rejected, but this rejection has been withdrawn.

Thus, it is clear that claim 1 is not anticipated by the disclosure of Garber. Moreover, it is self-evident that claims 24 and 25 recite the use of a tie having all the features of claim 1, as these claims depend from claim 1. As a result, claims 24 and 25 are also clearly not

anticipated.

To establish anticipation, the prior art reference must teach explicitly or inherently every feature of the claimed invention. Moreover, in making an anticipation rejection, an examiner must show where each and every feature of the claimed invention is described in the allegedly anticipatory reference. See, e.g., *Ex parte Levy*, 17 USPQ2d 1461, 1462 (BOPA 1990) ["Moreover, it is incumbent upon the Examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference. "] The rejection does not satisfy this requirement. The assertion that the features recited in claim 1 can be ignored is incorrect and not supported by any case law, statute, or Rule.

In view of the above remarks, it is respectfully submitted that Garber fails to anticipate applicants' invention. Withdrawal of the rejection is respectfully requested.

Rejection under 35 USC §103 in view of Nosker et al. and Reis

Claims 1, 3, 4, 8-9, 13-20, 24-25, and 27-34 are rejected as allegedly being obvious in view of Nosker et al. (US 5,916,932) in combination with Reis (US 2,051,619). This rejection is again respectfully traversed.

Reis discloses a composite **concrete** railroad tie having two tie bodies that engage one another using a tongue 11 and groove 10 arrangement. See Figure 1 and column 3, lines 5-13. The composite tie is designed to provide "a resiliently flexible, or yieldable track construction." See column 1, lines 3-14. The tie is intended to provide a degree of "yieldness" which improves traffic condition and absorbs shocks and vibrations. See column 1, lines 46-53.

Only one end of each tie body is fastened to a rail. The other end of each tie body has an upwardly inclined bottom surface 6. Thus, the sloped end of the tie is free to move relative to the rail resting thereon. See column 2, lines 39-45 and column 3, lines 48-58. In other words, the tie bodies are designed to move relative the rails.

In the rejection, reference is made to recesses 9 of the Reis tie. As shown in Figures 2 and 3, the bottom surface of each tie body is provided with recesses 9 "for greater grip of the body to the foundation, or road bed." This gripping is said to be due to a "suction effect" caused by the recesses. See column 2, lines 46-51. Moreover, regardless of the function of the recesses, the overall tie construction is designed to permit movement.

Reis makes no suggestion of using recesses in polymeric ties. It is noted that concrete

ties weigh considerably more than plastic ties. Nothing within the disclosure of Reis or Nosker et al suggests that such a "suction effect" can be achieved by putting recesses in the surface of the much-lighter plastic ties:

The rejection alleges that the dimensions/sizes recited in applicants' claims are mere obvious variations of the recesses of Reis. However, no rational is given in support of this conclusion. Nothing within the disclosure of Reis provides any suggestion of modifying the size, depth, arrangement, shape, or the angle of internal inclination of these recesses 9. Nor does Reis provide any suggestion that one could optimize the so-called suction effect by modifying the size, depth, arrangement, shape, or the angle of internal inclination of these recesses 9. For example, Reis does not suggest what factors one would adjust to affect gripping of the rail road bed or what ranges one would use for selecting, for example, the diameter, depth, or angle of inclination for the recesses 9. In fact, Reis does not disclose any values for the depth, size, and/or angle of inclination for recesses 9.

Thus, Reis does not disclose an angle of inclination for the internal walls of its recesses 9. Nor does Reis suggest that this angle should be manipulated to impact the so-called suction effect. Further, Reis is devoid of any suggestion as to modifying the angle of inclination used in recesses on a surface of a polymeric tie.

The rejection alleges that it would be "a matter of common knowledge" for one skilled in the art to make concave shapes in the tie of Nosker et al. This again is a conclusion; no support is provided for this allegation of common knowledge. The rejection present no rational as to why one would make such recesses in lighter plastic ties. Moreover, nothing in the rejection indicates why "common knowledge" leads one to provide structures in accordance with applicants' claimed invention, structures which are neither described nor suggested by either prior art reference.

In the rejection, reference is made to "minor dimension and shape variations." However, no explanation is provided as to what is meant by minor, nor why applicants' claimed structures are considered minor variations. It is noted that Reis provides no description of the angle of inclination and there is nothing within the disclosure of Reis to suggest that the drawings are drawn to scale. Further, there is no basis for asserting that such a feature is minor or insignificant. All features recited in a claim must be considered. See, e.g., *In re Angstadt et al.*, 190 USPQ 214 (CCPA 1976). The rejection also does not indicate how "common knowledge" would lead one to modify the cone/pyramid angle within a given

range or arrive at the claimed angle.

In situations where a reference does not disclose that the drawings presented therein are drawn to scale and is silent regarding dimensions, one can not rely on the drawings to show precise dimensions. See, e.g., *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000) ["[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue."]. See also MPEP §2125.

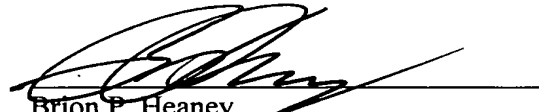
In the rejection, reference is made to MPEP 2144.04, IV(A), (B), with regards to how to treat allegedly obvious changes in shapes and designs. However, this is not a matter of mere scaling up. Further, the rejection presents no rationale as to why the recesses used in a concrete tie would perform the same in a plastic tie. Nor is there any rationale as to why the designs/arrangements of the recesses recited in applicants' claims when used in a plastic tie will function the same as the recesses used by Reis in concrete ties.

At the end of the rejection, the examiner makes an argument concerning weight percentages and components which is said to be based on "common sense." This allegation is again a mere conclusion. An obviousness rejection can not simply be premised on what the Examiner alleges to be common sense. Obviousness rejections must identify the differences between the claimed invention and the prior art and then set forth the rationale and motivation as to why one would modify the prior art so as to arrive at an embodiment of the claimed invention. Merely asserting "common sense" does not establish obviousness. For example, the rejection fails to present any rationale as to why would provide a plastic tie in accordance with claim 17.

In view of the above remarks, it is respectfully submitted that Nosker et al., taken alone or in combination with Reis, fails to render obvious applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,


Brion P. Heaney
Registration No. 32,542
Attorney for Applicants

MILLEN, WHITE, ZELANO
& BRANIGAN, P.C.
Arlington Courthouse Plaza I
2200 Clarendon Blvd. Suite 1400
Arlington, Virginia 22201
Telephone: (703)243-6333
Facsimile: (703) 243-6410
Attorney Docket No.: POLY-2

Date: May 27, 2003